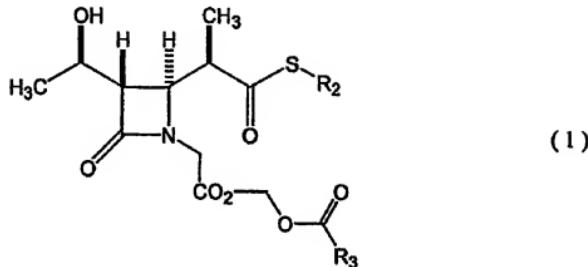


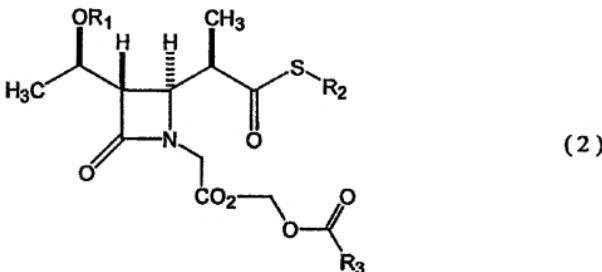
**In the Claims:**

Amend Claims 1, 6-8, 11 and 14. Cancel Claim 2. Changes in these Claims are shown with ~~strikethrough~~ for deleted matter and underlines for added matter). A complete listing of the claims with proper claim identifiers is set forth below.

1. (Currently Amended) A process for producing a  $\beta$ -lactam compound comprising protecting the hydroxyl group of a compound represented by general-formula (1):

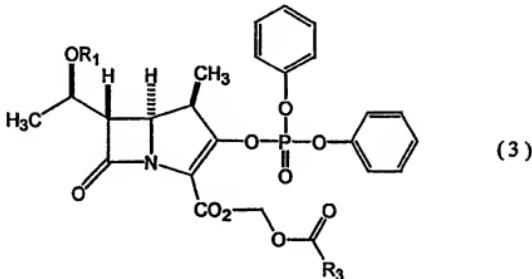


(wherein  $\text{R}_2$  represents an aryl group or a heteroaryl group; and  $\text{R}_3$  represents an alkyl group having 1 to 10 carbon atoms or a cycloalkyl group having 3 to 10 carbon atoms), to produce a compound represented by general-formula (2):



(wherein  $\text{R}_1$  represents a trimethylsilyl group or a triethylsilyl group; and  $\text{R}_2$  and  $\text{R}_3$  are the same as above); cyclizing the compound (2) in the presence of a strong base wherein the

strong base is a base selected from the group consisting of an alkali metal alkoxide, an alkali metal amide, and an alkali metal hydride; and subsequently allowing the cyclized compound to react with diphenylphosphoryl chloride to produce a compound represented by general formula (3):



(wherein  $\text{R}_1$  and  $\text{R}_3$  are the same as above).

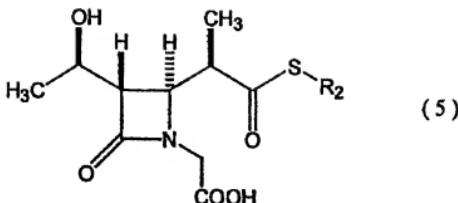
2. (Cancelled)

3. (Original) The process according to Claim 12, wherein the alkali metal alkoxide is potassium tert-butoxide.

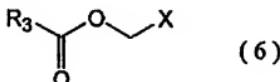
4. (Original) The process according to Claim 12, wherein the alkali metal amide is sodium bis(trimethylsilyl) amide.

5. (Original) The process according to Claim 12, wherein the alkali metal hydride is sodium hydride.

6. (Currently Amended) The process according to Claim 1, wherein the compound represented by general-formula (1) is produced by allowing a compound represented by general-formula (5):

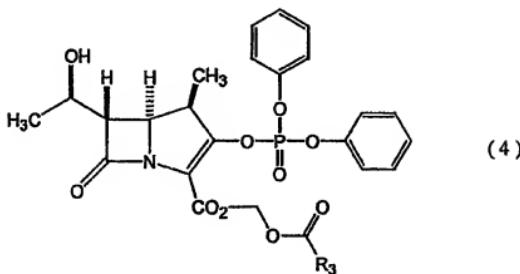


(wherein  $\text{R}_2$  represents an aryl group or a heteroaryl group), to react with a compound represented by general-formula (6):



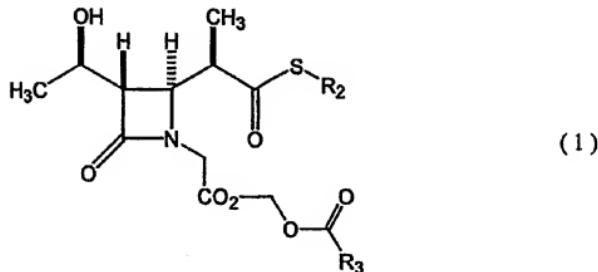
(wherein  $\text{R}_3$  represents an alkyl group having 1 to 10 carbon atoms or a cycloalkyl group having 3 to 10 carbon atoms; and  $\text{X}$  represents a halogen atom), in the presence of a base.

7. (Currently Amended) A process for producing a  $\beta$ -lactam compound represented by general-formula (4):



(wherein  $\text{R}_3$  represents an alkyl group having 1 to 10 carbon atoms or a cycloalkyl group having 3 to 10 carbon atoms), the process comprising deprotecting the hydroxyl moiety of the compound represented by general-formula (3) produced by the process according to any one of Claims 1 to 6.

8. (Currently Amended) A compound represented by general formula (1):

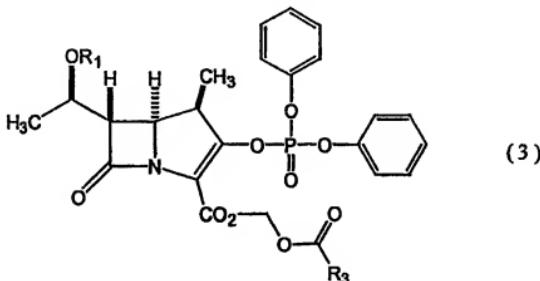


(wherein R<sub>2</sub> represents an aryl group or a heteroaryl group; and R<sub>3</sub> represents an alkyl group having 1 to 10 carbon atoms or a cycloalkyl group having 3 to 10 carbon atoms).

9. (Original) The compound according to Claim 8, wherein R<sub>2</sub> is a phenyl group or a p-chlorophenyl group.

10. (Original) The compound according to Claim 8 or 9, wherein R<sub>3</sub> is a tert-butyl group.

11. (Currently Amended) A compound represented by general formula (3):

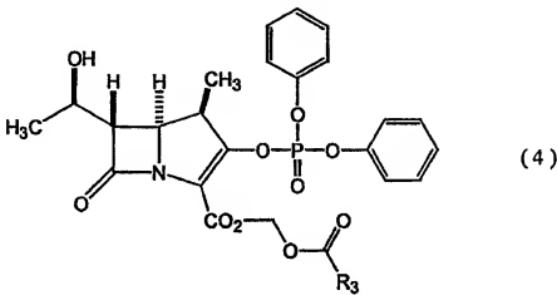


(wherein R<sub>1</sub> represents a trimethylsilyl group or a triethylsilyl group; and R<sub>3</sub> represents an alkyl group having 1 to 10 carbon atoms or a cycloalkyl group having 3 to 10 carbon atoms).

12. (Original) The compound according to Claim 11, wherein R<sub>3</sub> is a tert-butyl group.

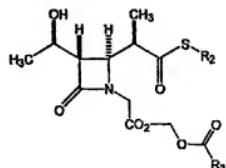
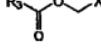
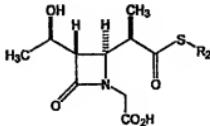
13. (Original) The compound according to Claim 11 or 12, wherein R<sub>1</sub> is a trimethylsilyl group.

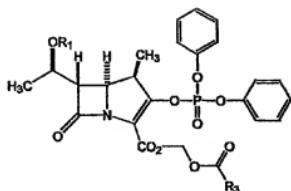
14. (Currently Amended) A compound represented by general formula (4):



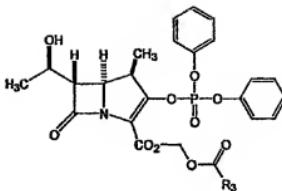
(wherein R<sub>3</sub> represents an alkyl group having 1 to 10 carbon atoms or a cycloalkyl group having 3 to 10 carbon atoms).

15. (Original) The compound according to Claim 14, wherein R<sub>3</sub> is a tert-butyl group.





(3)



(4)

(In the formulae, R<sub>1</sub> represents a trimethylsilyl group or a triethylsilyl group; R<sub>2</sub> represents an aryl group or a heteroaryl group; R<sub>3</sub> represents an alkyl group having 1 to 10 carbon atoms or a cycloalkyl group having 3 to 10 carbon atoms; and X represents a halogen atom.)